

Agricultural and Industrial Development in the United States (1877–1914)

California Education and the Environment Initiative

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California Environmental Protection Agency
California Natural Resources Agency
California State Board of Education
California Department of Education
Department of Resources Recycling and Recovery (CalRecycle)

Key Partners:

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Office of Education and the Environment

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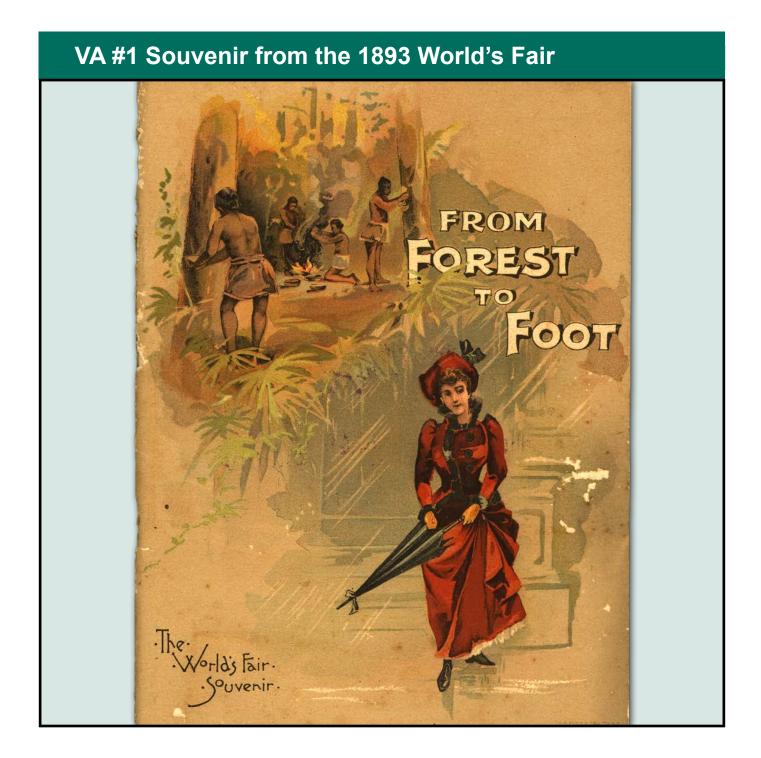
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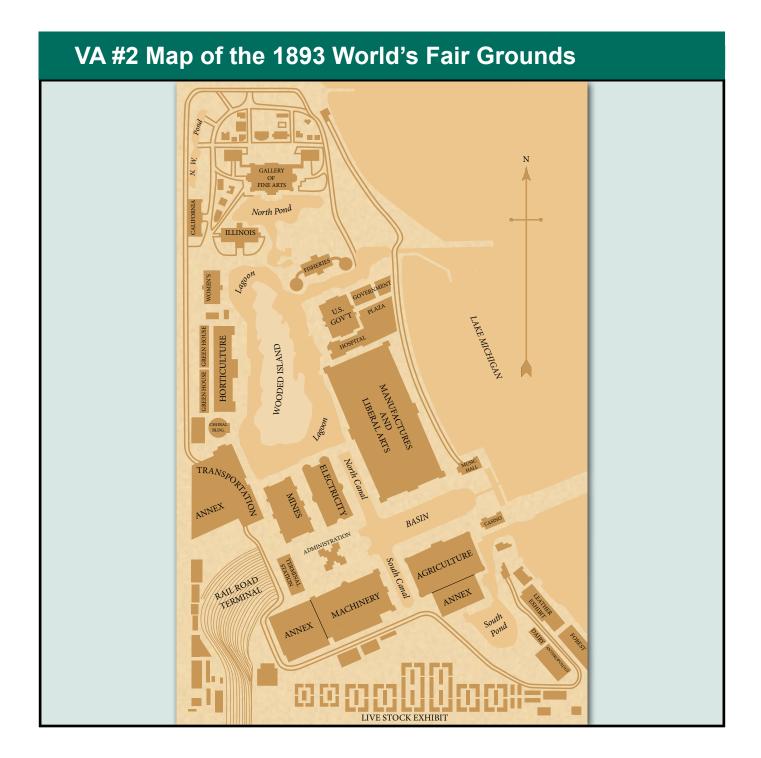


| L | esson 1 | California at the World's Fair of 1893 | | |
|----|--------------------------------------|--|--|--|
| 1 | Souvenir f | From the 1893 World's Fair | | |
| 2 | Map of the 1893 World's Fair Grounds | | | |
| 3 | California | Building at the 1893 World's Fair | | |
| ı | esson 2 | Growth of the Windy City | | |
| 4 | | imeline and Facts | | |
| 5 | Chicago's | Cityscape in the 1860s | | |
| 6 | Chicago in | n the Mid-1800s | | |
| 7 | Great Chic | cago Fire of 1871 | | |
| 8 | Chicago's | Cityscape in the 1880s 10 | | |
| 9 | Chicago in | n the Late-1800s | | |
| 10 | World's Fa | tir in Chicago, 1893 | | |
| L | esson 3 | A Second Industrial Revolution | | |
| 11 | New Techi | nologies of the Second Industrial Revolution | | |
| 12 | Bessemer I | Process | | |
| | Lesson 4 | Technology Transforms Daily Life and Natural Systems | | |
| 13 | The World | l and Journey of Joshua Sloth | | |
| 14 | Railroads i | in the World of the Sloths | | |
| 15 | Freight Tra | ain | | |
| 16 | Technolog | gy's Effects on the Environment | | |

Lesson 5 As the Century Turned: Considering Causes and Effects

| 17 | Station Directions | 19 |
|----|--|----|
| 18 | Developments Affecting Economic Growth | 20 |





VA #3 California Building at the 1893 World's Fair

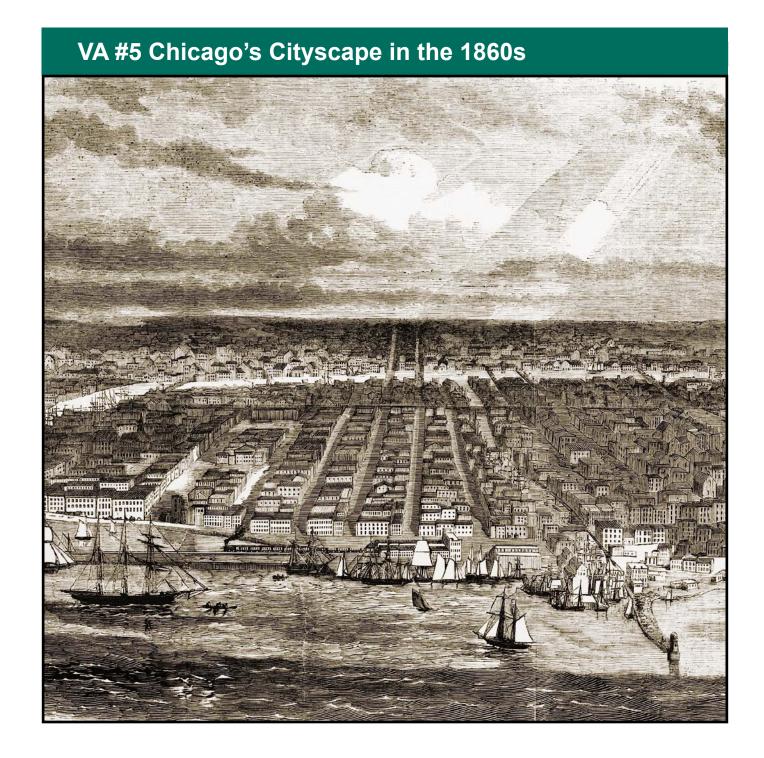
VA #4 Chicago Timeline and Facts

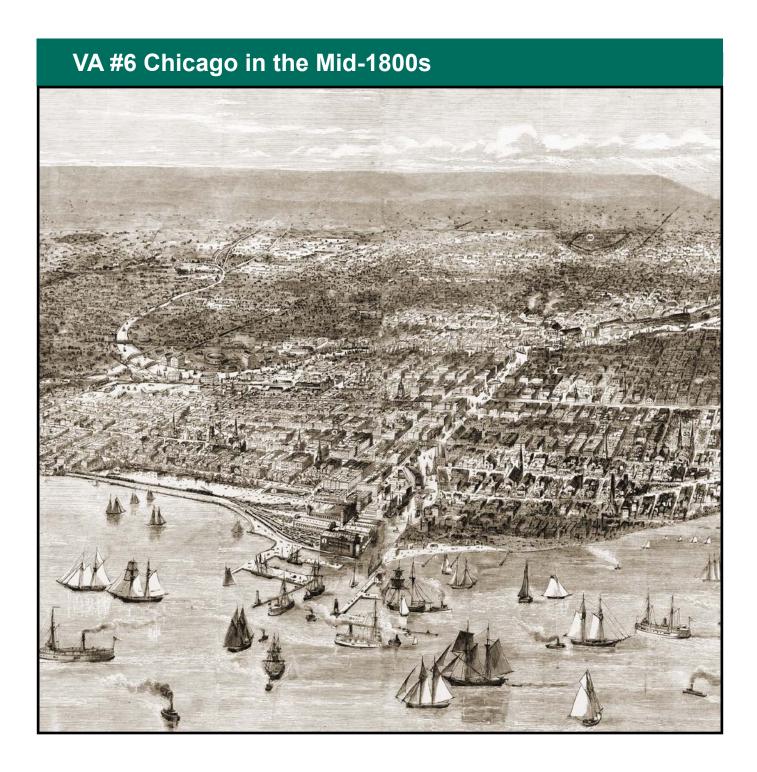
Climate: Hot and humid in summer; cold in winter; often windy.

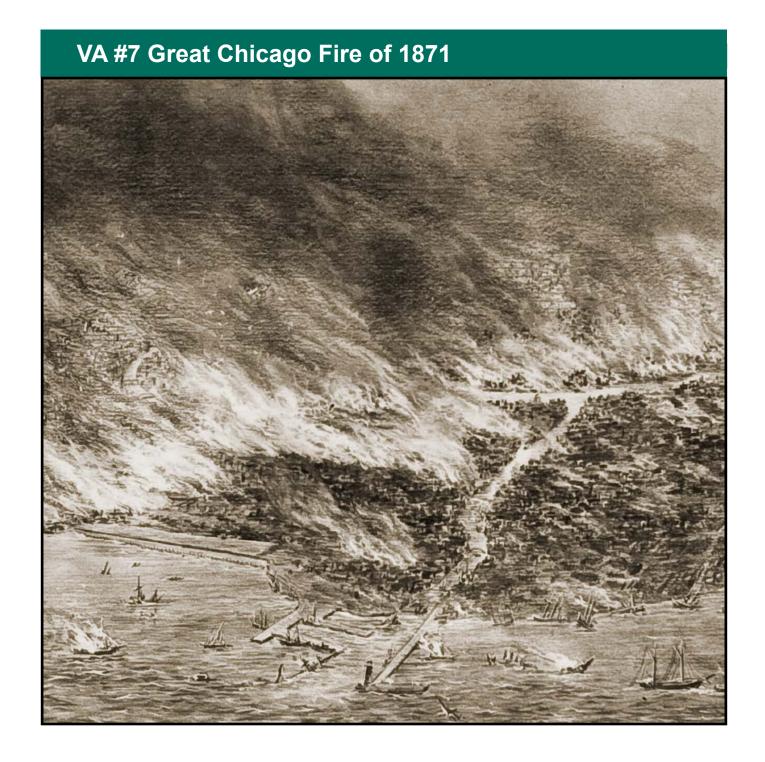
Landscape: Flat and swampy, with many trees; near a lake and river, with several streams in the area.

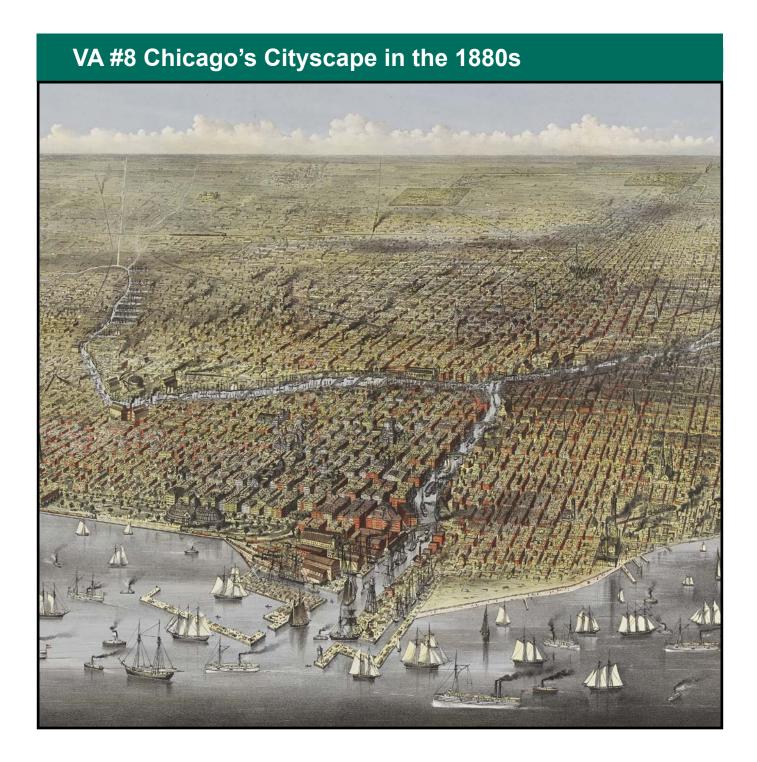
History:

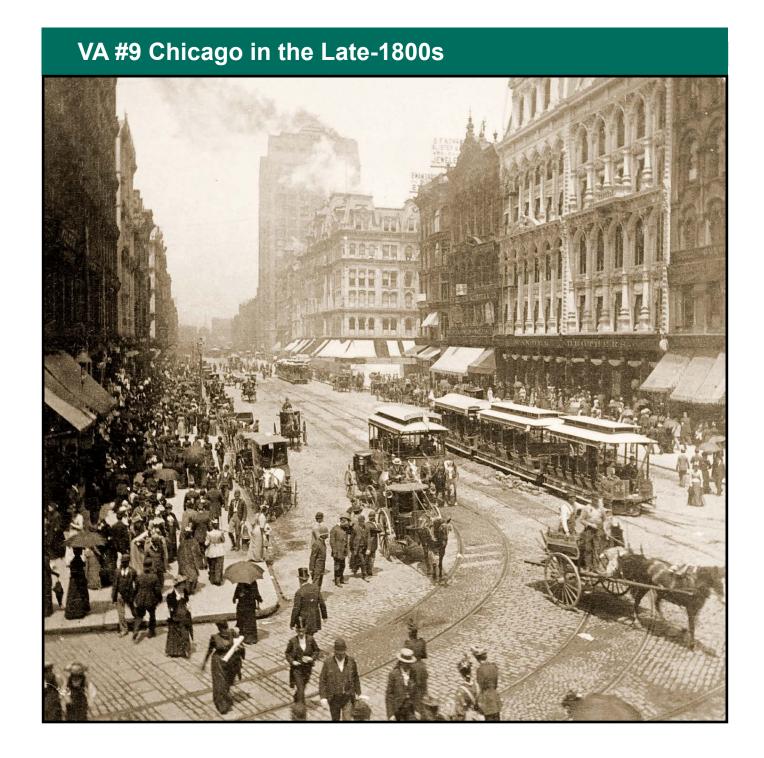
| 1770s | First permanent (European) settlement by Haitian trader Jean Baptiste Point du Sable |
|-------|--|
| 1802 | U.S. Army builds Fort Dearborn |
| 1816 | Potawatomi Indians cede area to United States |
| 1833 | Town of Chicago organized with a population of 350 |
| 1836 | Building of the Galena and Chicago Union Railroad |
| 1847 | McCormick Factory opened in Chicago |
| 1848 | Galena and Chicago Union Railroad opens |
| | Illinois and Michigan Canal opens |
| 1848 | Chicago Board of Trade founded |
| 1850 | Population of Chicago nears 30,000 |
| 1865 | Union Stock Yards open |
| 1870 | Population of Chicago nears 300,000 |
| 1871 | Great Chicago Fire |
| 1880 | Chicago's population surpasses half a million |
| 1890 | Chicago's population reaches 1 million |
| 1893 | Chicago World's Fair |

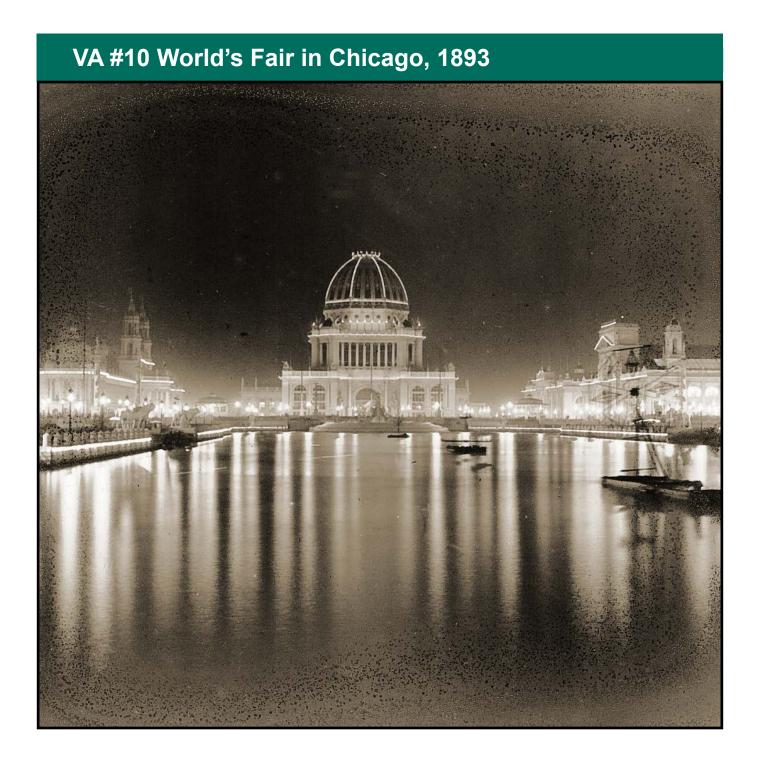






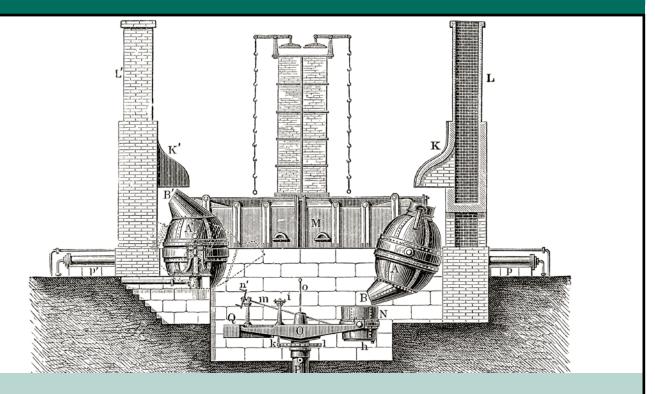




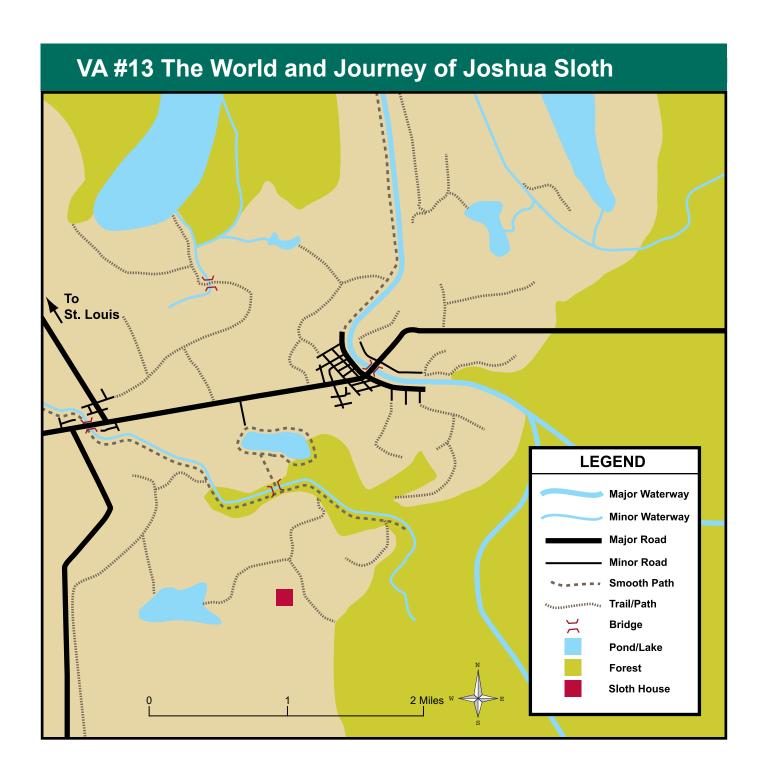


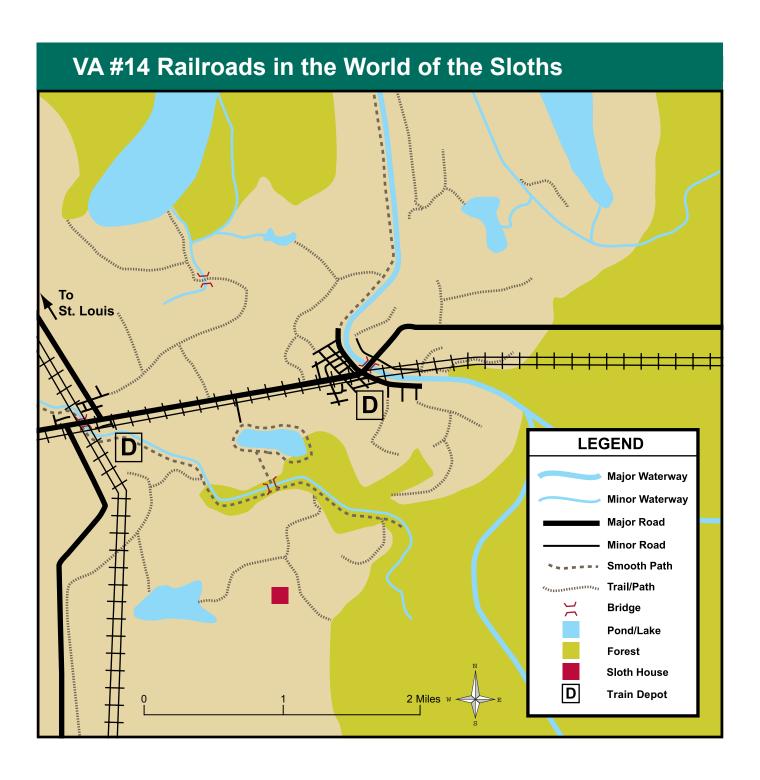
| VA #11 No | 1 New Technologies of the Second Industrial Revolution | | | | |
|---------------------|--|---|--|--|--|
| New Technologies | What does it do? | How is it changing the economy? What industries are affected? | | | |
| Bessemer Process | | | | | |
| McCormick Reaper | | | | | |
| Balloon Frame | | | | | |
| Barbed Wire | | | | | |
| Disassembly Line | | | | | |
| Refrigerated Car | | | | | |

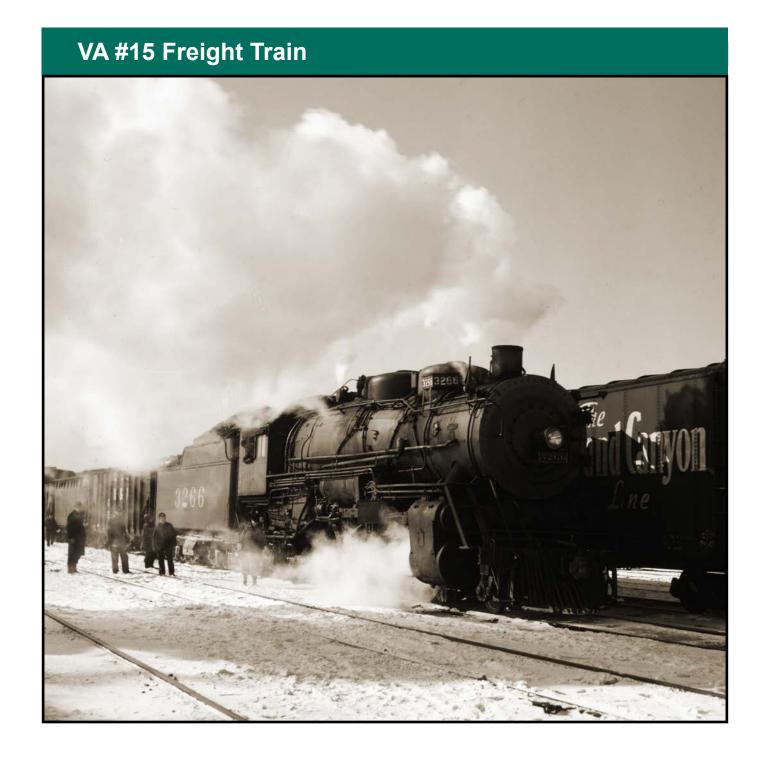
VA #12 Bessemer Process



The Bessemer process was designed to make large amounts of molten steel from iron. In the mid-1800s, Sir Henry Bessemer took a process that had been used to make iron and modified it for the production of steel. In this process, air was blown through the iron (in the "barrels" shown above). This caused the impurities to burn off and raised the temperature enough to create steel. These changes in the process made steel cheaper and more plentiful. This allowed railroads to expand, from 30,000 miles of track in 1862 to almost 199,000 miles in 1900. At first, most of the steel went to make rails for the expanding railroad system. Eventually, builders started to use the steel in large buildings, bridges, and other structures, as well.







| VA #16 Technology's Effects on the Environment | | | | | |
|--|-----------|---|---------------|-------------|--|
| Effects | Railroads | Refrigerated Car/ Disassembly Line | Balloon Frame | Barbed Wire | |
| Resources Used (extraction) | | | | | |
| Effects on Ecosystems | | | | | |
| Byproducts | | | | | |

VA #17 Station Directions

You are about to embark on a journey to several "stations." At each station is information about the political, economic, environmental, and cultural factors affecting economic development in the United wStates at the turn of the century.

On your journey:

- Read the information about the development featured at each station.
- Write a short description of the development on **Developments Affecting Economic Growth**.
- Assign each development to a category to which it best belongs: "government action," "environmental influences," or "economics."
- Give a brief explanation of the effect of the development on the United States economy at that time.

You may work with your group to complete these tasks.

| VA #18 Developments Affecting Economic Growth | | | | | |
|---|--------------|----------|-----------------------|--|--|
| Development | What was it? | Category | Effect on the Economy | | |
| Homestead Act of 1862 | | | | | |
| Pacific Railway Act of 1862 | | | | | |
| Internal Combustion Engine | | | | | |
| Deforestation of the American West | | | | | |
| Byproducts Industry | | | | | |





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